R E P O R T R E S U M E S

ED 014 748 CG 000 824

WORK INCENTIVES IN AN AGE OF AUTOMATION.

BY- LEVENSTEIN, AARON

PUB DATE 21 MAR 67

EDRS PRICE MF-$0.25 HC-$0.52 11P.

DESCRIPTORS- *WORK ATTITUDES, VOCATIONAL ADJUSTMENT, *TECHNOLOGICAL ADVANCEMENT, *THEORIES, SELF ACTUALIZATION, RELIGION, PHILOSOPHY, *AUTOMATION, SPEECHES,

HISTORICAL AND PHILOSOPHICAL PREMISES ABOUT THE MEANING OF WORK AND THE ROLE OF WORK IN MAN'S LIFE ARE EXPLORED. ATTITUDES TOWARD WORK CHANGE AS INCENTIVES CHANGED. WORK HAD MEANING WHEN IT MEANT SURVIVAL OR WAS CONNECTED TO A FEAR OF GOD. FREUD SAW WORK AS A FORCE WHICH BINDS MAN TO REALITY. OTHERS SEE IT AS A MEANS TO SELF-FULLFILLMENT, OR AS A PROTECTION AGAINST THE CONSCIOUSNESS OF DEATH. HOWEVER, THE DEVELOPMENT OF TECHNOLOGY REQUIRES THE RESHAPING OF ATTITUDES TOWARD WORK. A LACK OF CONGRUENCY EXISTS BETWEEN THE GOALS OF THE INDIVIDUAL AND THOSE OF THE ORGANIZATION. MAN, INVOLVED IN A CHOICE BETWEEN AUTONOMY AND HIGH STANDARD OF LIVING, HAS CHOSEN THE GOOD LIFE. ALTHOUGH MARX'S EARLY WRITINGS PREDICTED THE LOSS OF INDIVIDUALISM, WORK ALIENATION IS NOT CONNECTED TO ANY POLITICAL IDEOLOGY. RATHER, IT IS CAUSED BY ANY SYSTEM UTILIZING MASS PRODUCTION PROCESSES. RELIEF FROM FEELINGS OF ALIENATION IN WORK BY MORE PROFITABLE USE OF LEISURE TIME IS NOT A SATISFACTORY SOLUTION. THE FRUSTRATIONS, RESENTMENT, AND LACK OF SELF-ESTEEM CAUSED BY WORK ALIENATION ARE CARRIED OVER INTO LEISURE PERIODS. MAN MUST DEVELOP A NEW ATTITUDE EMPHASIZING HIS ROLE AS A COOPERATIVE TEAM MEMBER RATHER THAN HIS ROLE AS AN UNDIVIDUALIST. THIS PAPER WAS PRESENTED AT THE ANNUAL MEETINGS OF THE AMERICAN ORTHOPSYCHIATRIC ASSN. (44TH), WASHINGTON, D.C., MARCH 21, 1967. (PS)

elivered at the 44th Annual Meeting of the
merican Orthopsychiatric Association
'ashington, D. C., March 21, 1967

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM TH
PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINI
STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATIO
POSITION OR POLICY.

ED014748

WORK INCENTIVES IN AN AGE OF AUTOMATION

by

AARON LEVENSTEIN
Baruch School of Business and Public Administration
City College of New York

The essential characteristic of Paradise is absence of work. That is the view of the author of the Book of Genesis.[1] It is shared by some sociologists who believe -- or more accurately, dream -- that some day work will be eliminated by technology. Even if that were to occur, what would be the consequences?

Daniel Bell has suggested that one of the purposes of work is to protect us against the consciousness of death:[2]

> One could eliminate death from consciousness by minimizing it through work. As homo faber, man could seek to master nature and to discipline himself. Work, said Freud, was the chief means of binding an individual to reality. What will happen, then, when not only the worker but work itself is displaced by the machine?

As always, Bell is stimulating, but a stimulated mind is bound to read these remarks with some skepticism. Bell cannot have it both ways. If work binds us to reality, how can it be the veil that shields us from the ultimate reality, namely death? But more important than this psycho-philosophical question is the assumption Bell makes that work itself will disappear as a result of technological progress. Increasingly, the cyberneticists concede that their machines and computers will not replace man, which means that work incentives will remain important. After a decade and a half of automation, the total number of employed in the United States is at an all-time high.

The real problem in the foreseeable future is how man will adjust his attitudes towards working in an automated society. The aptest parallel that can help illustrate the problem is the change in man's attitude towards fire.

CG 000 824

Once it was sacred, worshipped by man as a god; we have adjusted to it since the pagan days -- we fear it, to be sure, but we use it with respect instead of awe. So, too, with work, which even beyond the Puritan Reformation has been worshipped by man as God-decreed.

The story of man's attitude towards work is the story of incentives. When man believed that work was essential for physical survival, he had all the incentive he needed. When he believed that work was linked with the basic purpose of his existence -- namely, service to a God he feared -- he needed no other motivations. If he reached the happy stage where he found intrinsic satisfactions in his work because it fulfilled a need for achievement, he could go forth whistling while he worked. But industrialization, culminating in the production of goods and services through automated and computerized techniques, now challenges him to find new incentives, that is to say, reshape his attitude towards work.

The historian, Toynbee, says that in Hellenistic days work was "deconsecrated" by its identification with slavery; that it was "reconsecrated" by the Church in the Middle Ages; and that now it is being "secularised", to the detriment of man. He writes:[3]

> The driving force that has been put into work by religion has thus been disconnected from its original religious source and raison d'etre; but this spiritual lesion has not paralyzed the operation of the driving force in its new nonreligious sphere. In modern as in medieval Western Christendom, this force has retained and increased its momentum in the secular field after it has been divorced from its original religious inspiration, purpose and significance. Its physical vigor has persisted unimpaired; but its moral character has not remained unchanged. A force that was beneficent so long as it was being exerted in the service of religion has become demonic now that it has been dissociated from religion and has come to be an end in itself. This demonic aspect of our deconsecrated business activities -- our marvelous business organization and our marvelous technology is a portent in our contemporary Western life that is now arousing widespread concern and alarm in Western souls.

Thus religion and sociology -- one might consider them as beauty and the beast among our contemporary disciplines -- seek comfort in each other's arms as they walk the night of modern times. Obviously something is happening in the world of work. And since work does bear directly on the human soul, as Toynbee would name it, or the human condition, as the sociologist would put it, or the psyche, as you ladies and gentlemen would call it, we are well met to explore man's relationship to the process of work, particularly as it has been altered by the new technology. Whether your approach is sociological, historical, religious or psychological, you have much to be concerned with in viewing the process through which work is now going.

In one way or another, all would agree with Sigmund Freud's premise, to which Bell referred:[4]

> Laying stress upon importance of work has a greater effect than any other technique of living in the direction of binding the individual more closely to reality; in his work he is at least securely attached to a part of reality, the human community. . . . And yet as a path to happiness work is not valued very highly by men. They do not run after it as they do after other opportunities for gratification. The great majority work only when forced by necessity, and this natural human aversion to work gives rise to the most difficult social problems.

The last part of Freud's statement would draw fire from some contemporary commentators. Adherents of Douglas McGregor's "Theory Y" deny that "the average man is by nature indolent -- he works as little as possible."[5] Instead, they argue, the need for self-fulfillment, or to use Maslow's term, self-actualization, leads to satisfaction in the work process. McGregor says:[6]

> The motivation, the potential for development, the capacity for assuming responsibility, the readiness to direct behavior toward organizational goals are all present in people. Management does not put them there. It is a responsibility of management to make it possible for people to recognize and develop these human characteristics for themselves.

If people become passive or resistant to the needs of the work situation, it is because management has failed in its responsibility "to arrange' organizational conditions and methods of operation so that people can achieve their own goals best by directing their own efforts toward organizational objectives."[7] All we need, then, is the proper organizational manipulations and the workers will respond spontaneously to the needs of the enterprise. This manipulated spontaneity is almost the language of Orwellian Newspeak.

The trouble with this thinking is that the organization is not really a free agent. It is not free to pick among a variety of objectives. It is not even free to manipulate. It starts with objectives, which then determine its procedures, which in turn forbid the liberation of employee initiative. The organization's goals automatically eliminate individual goals or conflict with them. The goal of the organization is efficiency, the most profitable utilization of technology, the application of the principles of scientific management. As Chris Argyris has pointed out:[8]

> The impact of the principles is to place employees in work situations where (1) they are provided minimal control over their workaday world, (2) they are expected to be passive, dependent and subordinate, (3) they are expected to have the use of a few skin-surface shallow abilities, and (4) they are expected to produce under conditions leading to psychological failure.

The result is "a lack of congruency between the needs of healthy individuals" and the demands of the organization. "The resultants of this disturbance (caused by the lack of congruency) are frustration, failure, short time perspective, and conflict."[9]

The root of the problem is that mass production, made necessary by population growth, requires a certain type of organization aimed at suppressing individual uniqueness in the performance of work tasks. The "one best method" must be determined by the Methods Man, the one best design must be determined by the Design Department, the one best machine must be determined by

the engineer, the one best material must be made available by the Purchasing Agent -- and the worker must then work in accordance with all of these predetermined conditions. If he deviates in any way, he undermines the best wisdom of the specialized experts, reduces the volume of output and impairs the quality of the product. All this was clearly understood, and honestly acknowledged, by the proponents of scientific management at the turn of the century. Frederick Winslow Taylor, who is frequently called "the father of scientific management", said: "In the past, the man has been first; in the future the system must be first."[10] So much for the primacy of man in the scheme of things.

But Taylor was not being crass. He too was possessed of a vision:[11]

> Let me say that we are now but on the threshold of the coming era of true cooperation. <u>The time is fast going by for the great personal or individual achievement of any one man standing alone and without the help of those around him</u>. And the time is coming when all the great things will be done by the cooperation of many men in which each man performs that function for which he is best suited, each man preserves his individuality and is supreme in his particular function, and each man at the same time loses none of his originality and proper personal initiative, and yet is controlled by and must work harmoniously with many other men. (Emphasis mine. - A.L.)

Now, half a century after Taylor wrote these words, the first part of his prophecy has been fulfilled. The time of individual achievement in the production of goods and services is over. Great things have been done. The standard of living has been raised, hours of work have been reduced, the brutalizing tasks that once consumed the flesh and blood and bone of slaves are now being eliminated. But the antinomian part of Taylor's prophecy -- the preservation of each man's individuality in the process of subjecting himself to the needs of the organization -- has not come to pass. Indeed the advent of automation, the ultimate in machine control, makes organization more awesome in its power.

For the whole trend in the advance of technology has been to reduce the area of human error by transferring control to the machine, by eliminating the need for individual judgment, by creating models that a machine can follow rather than run the risk of human deviation. For a variety of sound economic reasons, the division of labor pays. We could not produce the volume or quality of goods we turn out unless we gave supremacy to the team as against the individual. But in the course of doing so, work becomes fragmented. Man is further removed from the end product toward which his individual effort is only a partial contribution, and his identification with the product grows dimmer and dimmer.

A nineteenth century writer named Karl Marx foresaw this development and discussed it in terms of man's alienation from his work. Only in the past few years has this aspect of Marx's work been rediscovered, since it was the product of his youth and he seems, in later years, to have ignored it himself. Sidney Hook, discussing the current interest in these youthful views, calls the trend a kind of "second coming" of Marx, the first having failed to usher in the messianic period that Marx's later economics were supposed to create.[12] The second coming, I think, is significant because it reflects a new disillusionment with the materialistic millennialism of Communism -- which now turns out to be as illusory as was its predecessor, Christian chiliasm. It is not accidental that among the leading scholars who have contributed most to the literature of the second advent is your fellow-worker in the vineyards of psychiatry, Dr. Erich Fromm. In his book, Marx's Concept of Man,[13] he has resurrected the lost gospels and reprinted some of Marx's philosophical manuscripts of 1844.

The young Marx, then only 26 years old, living in the first flushes of the Industrial Revolution, saw that events were leading inevitably to a loss of individualism in the new work setting. The processes of mass produc-

tion were ironing out personal uniqueness for the sake of the economies made possible by producing goods out of standardized components. Marx's perception was as prophetic as Frederick Winslow Taylor's, even though decades were yet to pass before the disciples of scientific management began to prowl the scene with stop-watch and clipboard. Marx foresaw the consequences of a system based on mass production through the use of interchangeable parts -- the precursor and sine qua non of the latest automated, integrated factories. He could already see that work was being fragmented by Adam Smith's division of labor into the mere production of interchangeable parts, and that man himself was becoming one of the "interchangeables" in the process. For the individual, the consequences are now visible on every hand: there is a constant atrophy of that sense of individual achievement so necessary if life is to be meaningful; increasing alienation is the lot of contemporary man. Marx described the process in these terms:[14]

> What constitutes the alienation of labor? First, that the work is external to the worker, that it is not part of his nature; and that, consequently, he does not fulfill himself in his work but denies himself, has a feeling of misery rather than well being, does not develop freely his mental and physical energies but is physically exhausted and mentally debased. The worker therefore feels himself at home only during his leisure time, whereas at work he feels homeless. His work is not voluntary but imposed, forced labor. It is not the satisfaction of a need, but only a means for satisfying other needs. Its alien character is clearly shown by the fact that as soon as there is no physical or other compulsion it is avoided like the plague. External labor, labor in which man alienates himself, is a labor of self-sacrifice, of mortification. Finally, the external character of work for the worker is shown by the fact that it is not his own work but work for someone else, that in work he does not belong to himself but to another person. (Emphasis in the original.)

Now this was written, you must remember, before Karl Marx became a Marxist. In later years, he attributed this process of alienation to capitalism, which so far as the world could then know was the only form taken by industrialization. Today we have had the opportunity to see that industrialization can take other economic forms -- it can be fascist or communist, or can be pursued under social-democratic policies. Now we know that this

alienation is not the creature of free enterprise or state capitalism but of any system that utilizes mass production processes. Nowhere has this been better demonstrated than in the countries where Communism is official doctrine. This has become clear even to the Marxist scholars themselves. That is why the youthful Marx is being resurrected by the young and disaffected as a relatively safe expression of rebellion against the older generation of Marxists who are no better prepared to cope with alienation than are the elders of the West.

To illustrate, let me quote Gajo Petrovic, a Yugoslav Marxist philosopher, who told an international conference of Marxist scholars, held in April of last year: [15]

> The problem of de-alienation of economic life cannot be solved by the abolition of private property. The transformation of private property into state property /be it Capitalist or Socialist state property/ does not introduce an essential change in the situation of the working man, the producer.
>
> The de-alienation of economic life requires also the abolition of state property, its transformation into real social property, and this can be achieved only by organizing the whole of social life on the basis of self-management of the immediate producers.

But there's the rub. Can "self-management" take place in a complex, inter-dependent system of production without disrupting the productive process? To destroy the authority of the organization, to let the worker ignore the operation sheets handed down by the design engineer, may end alienation. But it will not only end alienation: it will end our high standard of living, restore the prevalence of hunger, increase physical homelessness and nakedness. Given a conscious choice, men and women will certainly opt for food, clothing and shelter even if they must be "alienated" during their working hours -- provided that they are still given enough waking hours in which to express and pursue their own personal purposes. Marx said that the worker "feels himself at home only during his leisure time, whereas at work

he feels homeless." For many, indeed for millions, that is not an unattractive choice, particularly if the trend is toward a reduction in working hours and an enlargement of leisure time, achieved by the very process of mass production. For the peoples of the newly emerging nations in Africa, Asia and Latin America, industrialization in any form has become the desideratum because the regimentation of work, in their eyes, will be compensated by the greater freedom of leisure.

But the choices are not that easy, as the newcomers to industrialization are bound to learn. Einstein once said that God is not mean and does not play dice with the cosmos. But History can be mean, and it does play dice with the hopes of men. History does not offer us cut-rate bargains. For those of us concerned with freedom and the capacity of man to achieve self-fulfillment, there can be no Pollyanna acceptance of a contract which offers leisure in return for regimented work. In practice, the <u>quid pro quo</u> for regimentation at work is not likely to be a leisure enjoyed in freedom. More probably, the alienation created on the job will be carried over into our leisure behavior. The frustrations and resentments that pile up at the work bench will accompany us into the family circle, the neighborhood council, the polling place, the social gathering, the trade union. The worker cannot change his personality -- his lack of self-esteem, his sense of impotence, his boredom, in short the patterns imprinted on him by his job -- as easily as he sheds his overalls. Work, our link with reality, will make us what we are in our leisure hours.

Yet I do not think we are confronted with an unsolvable problem. Man has found it necessary to shift his self-image in accordance with a changing environment. Man had to develop a new kind of self-perception to advance from a pastoral society to an agricultural -- to a commercial -- to an industrial -- and now to an automated society, perhaps one that can best be termed a "post-

industrial" society. Man who once saw himself as the central creature on a planet that was the center of the universe has been able to adjust to the idea that he is only another branch on the evolutionary tree, that his earth is merely a speck in the vastnesses of space, that he is neither a little lower than the angels nor very much higher than the beasts, that he is less homo sapiens, the man of reason, than he is homo sentiens, the man of feeling who lives most of his life in the unreasoning, unconscious depths of his being. Now man has to make a new adjustment in his picture of himself: he must recognize that the fullness of his life will be found not in the independence that once gave satisfaction to a race of pioneers, cut off in the wilderness; that there can be equal joy with others in a team effort to produce goods for all. He must realize that even if you can't go home again, you need not be an alien in this new world. If "no man is an island, entire of itself" there are nevertheless security and opportunities for growth in the awareness that "every man is a piece of the continent, a part of the main."

In the early years of the first Industrial Revolution, no prophet possessed the vision to see the new institutions that industrialization would require and the new concepts that would have to enter the mind of man. Now, as we enter the world of cybernetic production and computer technology, the limited vision of men cannot anticipate the new social structures that will follow. At best, we can have only a sense of the direction in which our problems will lie. Men will still have to go forth to work, but they will have to see themselves not as pastoral patriarchs, not as master husbandmen, not as medieval knights, not as Medici merchants of the Renaissance, not as captains of industry, but as members of a cooperative community dedicated to mutual survival.

Footnotes

1. Genesis, 3:1-24.

2. Daniel Bell, "Work and Its Discontents", in The End of Ideology, New York, The Free Press of Glencoe, 1960, p. 262.

3. Arnold Toynbee, "Man at Work in the Light of History", in Man at Work in God's World, edited by George E. DeMille, New York, Longmans, Green & Co., 1956, p. 38.

4. Sigmund Freud, Civilization and Its Discontents, Garden City, N. Y., Anchor Books, Doubleday & Co., 1958, pp. 21-2n.)

5. Douglas M. McGregor, "The Human Side of Enterprise", in Readings in Human Relations, 2d Ed., edited by Keith Davis and William G. Scott, New York, McGraw-Hill Book Co., 1964, p. 39.

6. Ibid., p. 45.

7. Idem.

8. Chris Argyris, Understanding Organizational Behavior, Homewood, Ill., Dorsey Press, Inc., 1960, pp. 14-15.

9. Ibid., p. 21n.

10. Frederick Winslow Taylor, The Principles of Scientific Management, New York, Harper and Brothers, 1911, p. 7.

11. Frederick Winslow Taylor, "On the Art of Cutting Metals", in Transactions of the American Society of Mechanical Engineers, XXVIII (1906), p. 128.

12. Sidney Hook, "Speaking of Books: Karl Marx's Second Coming", in The New York Times Book Review, May 22, 1966, p. 2.

13. Erich Fromm, Marx's Concept of Man, with a translation from Marx's "Economic and Philosophical Manuscripts" by T. B. Bottomore, New York, Frederick Ungar Publishing Co., 1961.

14. Ibid., pp. 98-9.

15. "Marxist Attacks State Ownership", New York Times, April 27, 1966.